

CLAIMS

*Add 937 Add B27*

✓ 1. In a truck tractor and trailer vehicle wherein the trailer is attached to the tractor by a fifth wheel coupling, a means for adjusting the ride, handling, steering and vibration characteristics of said vehicle comprising:

(a). (An air bellows spring means located directly on and above the front leaf spring of said tractor between said leaf spring and the frame of said tractor <sup>NA</sup> *something missing* the vertical center line of the steering axle <sup>NA</sup> and the rear shackle of said leaf spring; <sup>NA</sup>

(b). <sup>NA</sup> Wherein said air bellows spring is mounted on top of said leaf spring using a lower mounting plate which extends a <sup>NA means</sup> predetermined distance along the top of said leaf spring;

(c). Wherein the top of said air bellows spring is secured to the frame of said tractor above the vertical center line of said air bellows spring by an upper mounting bracket; <sup>NA</sup>

(d). <sup>NA means</sup> Wherein said air bellows spring is connected to an air supply means through a manually adjustable pressure adjustment means, and

(e). Wherein the spring action of said air bellows spring can be adjusted by the tractor driver from inside the tractor cab. <sup>NA</sup>

2. A means for adjusting the ride, handling, steering and vibration characteristics of a tractor trailer truck vehicle of claim 1,

wherein the air bellows lower mounting plate is a rigid plate extending along the top of said leaf spring and said lower plate has a vertical flange extending downwardly

along each side of said leaf spring a predetermined distance.

3. A means for adjusting the the ride, handling, steering and vibration characteristics of a tractor trailer truck vehicle of Claim 1,

wherein the air bellows is sized and designed to operate with air pressure in the <sup>NA</sup> optimum range of 5-75 psig.

4. A means for adjusting the ride, handling, steering and vibration characteristics of Claim 1,

wherein the lower mounting plate of said air bellows extends rearward along the top of the leaf spring from <sup>NA</sup> the vertical center line of the steering axle.

5. A means for adjusting the steering and vibration characteristics of Claim 1,

wherein the lower mounting plate of said air bellows spring extends rearward along the leaf spring from the <sup>NA</sup> axle bracket U-bolt and is independent of said U-bolt.

6. A means <sup>NA</sup> for adjusting the ride, handling and vibration characteristics of Claim 1,

wherein the lower mounting plate of said air bellows spring extends rearward along the leaf spring from <sup>NA</sup> the axle bracket U-bolt a distance at least equal to the <sup>NA</sup> diameter of the <sup>NA</sup> bellows of said air bellows spring. <sup>NA</sup>

√ 7. In a motor vehicle having a tractor portion containing an engine for moving said vehicle and a trailer portion for containing a substantial portion of the vehicle load wherein the said trailer connects to the tractor portion near a set of rear <sup>NA</sup>

<sup>NA</sup>  
portion

wheels above said rear wheels and between said rear wheels and a set of front steering wheels by an adjustable pivot point so that a major portion of the connecting load of said trailer rests on said rear wheels and the portion of said load on said rear wheels can be adjusted by moving said pivot point forward and rearward between said rear wheels and said front wheels, wherein the front steering wheels are attached to the frame of said tractor by a set of leaf springs attached to the frame and an axle bearing said steering wheels, the improvement comprising mounting an air adjustable air bellows spring means directly on and above the front leaf spring and below the frame of said tractor, wherein the air spring bellows is mounted at a point directly above the longitudinal center line of said leaf spring and at a point above said leaf spring between the point of attachment on the axle and leaf spring and the rear shackle of said leaf spring;

wherein said air bellows air spring is connected to the frame of said tractor directly above the air bellows air spring; and

wherein the air pressure can be manually adjusted by the tractor driver so that the air bellows air spring exerts the desired force between the tractor frame and the front leaf springs which desired force can be adjusted by the driver according to the load distribution between the front wheels and rear wheels of said tractor and the road conditions for optimum driving conditions of said tractor.